

Reef coral genera of the Western Indian Ocean



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This guide to the genera of the Western Indian Ocean gives ID photos for typical species and growth forms found in the region.

Corals are arranged by family then genus, alphabetically.

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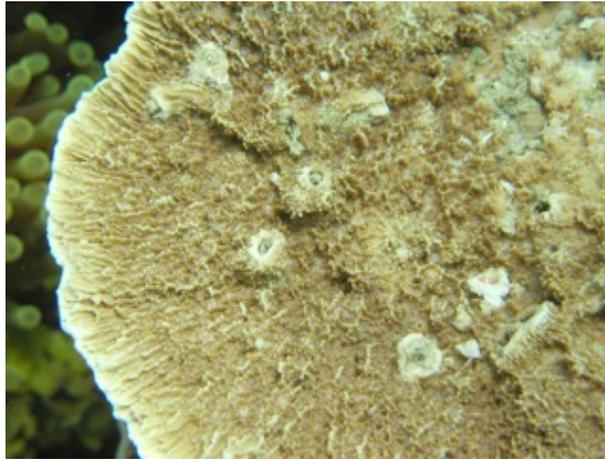
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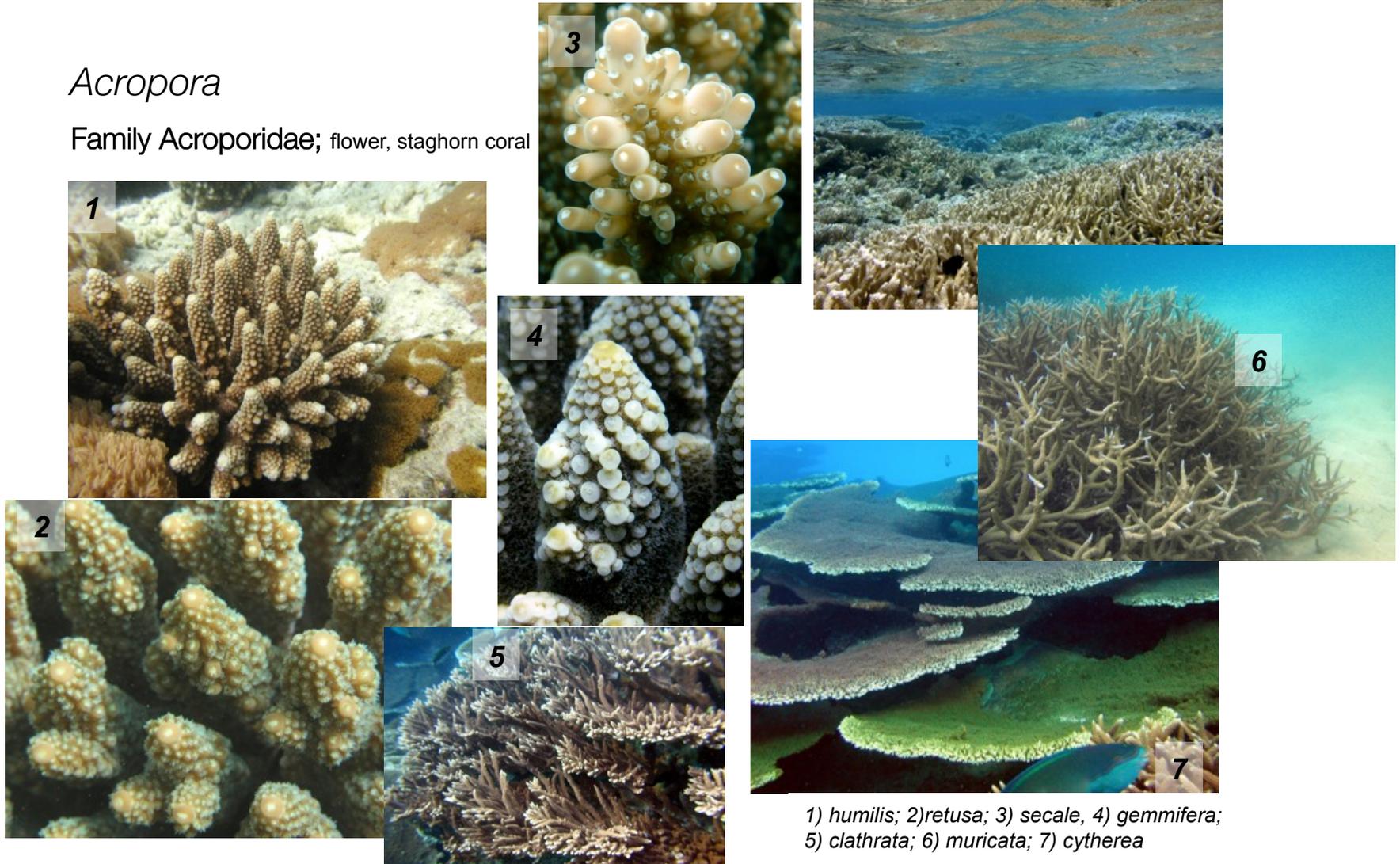


Fam: **Acroporidae**



Acropora

Family Acroporidae; flower, staghorn coral



1) *humilis*; 2) *retusa*; 3) *secale*, 4) *gemmifera*;
5) *clathrata*; 6) *muricata*; 7) *cytherea*

Colony type	Usually branching, bushy or plate like, encrusting, sub massive
Corallite type	rounded raised, protruding above the coenostium 1-3 mm in diameter. Two types: axial corallites at the tips of branches/growing edges & radial corallites around the branches/main body.
Description	Distinctive branching growth forms, mostly brown but many other colours but with white/pale growing tips.
Septa-costae	Septa in two cycles
Other remarks	Tentacles are extended usually at night, corallite wall and the coenostium are porous, axial corallites are larger

Astreopora

Family Acroporidae; star flower coral



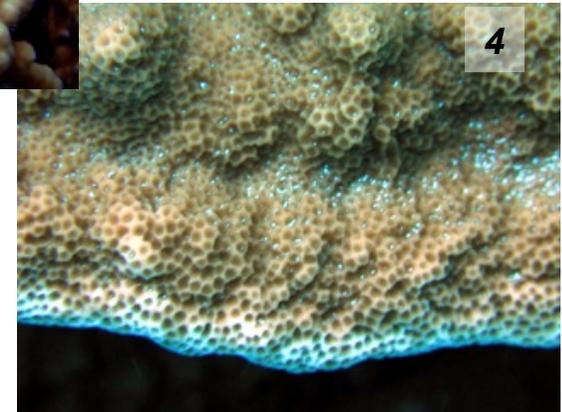
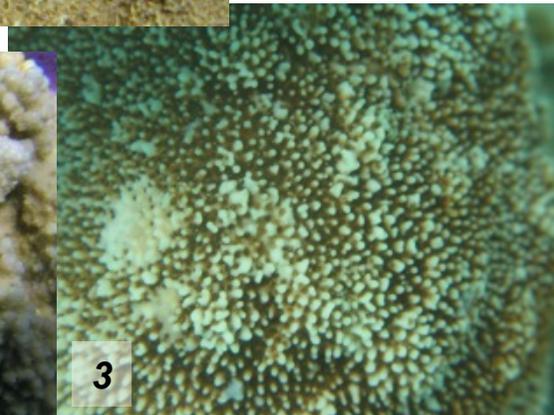
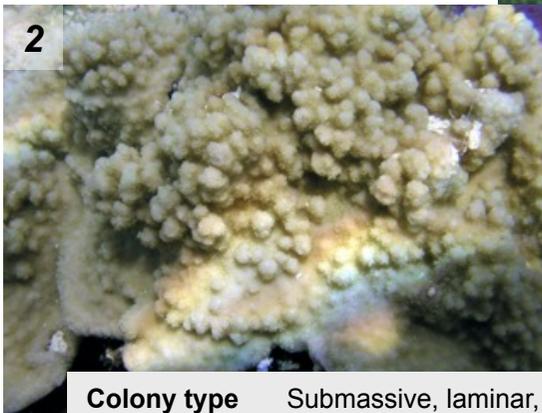
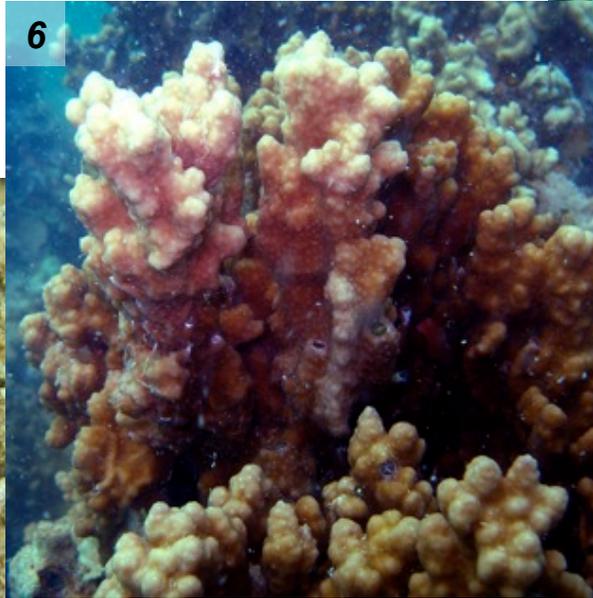
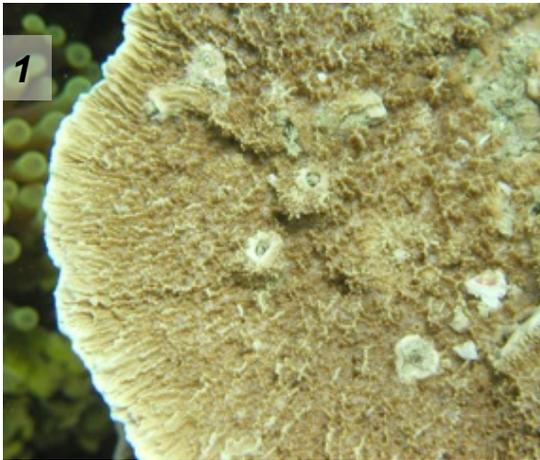
1) *myriophthalma*; 2) *listeri*; 3) *randalli*,
4) *expansa*; 5) *ocellata*; 6) *suggesta*



Colony type	Massive, plating, encrusting
Corallite type	Mostly conical but can be immersed
Description	Coenostium has granular appearance, from teeth on septo-costae. Depending on their size it appears smooth, spinous or flaky
Septa-costae	Short numerous neatly spaced septa
Other remarks	Columella is conspicuous and compact
Similar species	<i>Turbinaria</i> - coenostium plain, no elaborations

Montipora

Family Acroporidae; pore, velvet coral



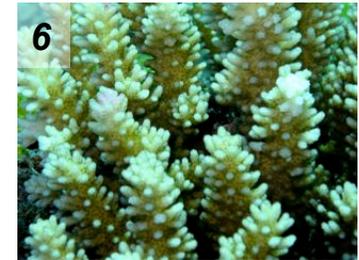
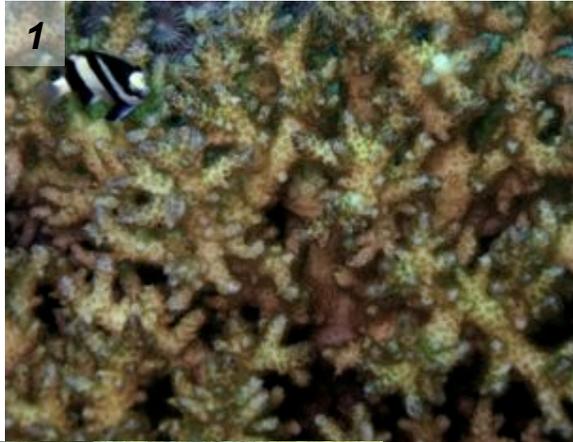
1) *aequituberculata*; 2) *floweri?*; 3) *tuberculosa*,
4) *foveolata*; 5) *nodosa*; 6) *spongodes*

Colony type	Submassive, laminar, encrusting or branching
Corallite type	Corallites are small, less than 1mm, pore like, sometimes not visible underwater
General	Columella absent, corallite walls & coenostium are porous & may be highly elaborate with projections (papillae, tuberculae, ridges), or depressions in which the corallites sit. One species may have multiple growth forms.
Septa-costae	Septa in 2 cycles with inward projecting teeth
Other remarks	Calice is pore-like immersed; tentacles are usually extended at night
Similar species	<i>Porites</i> - corallite filled with internal structures, coenostium without elaborated structures

Fam: Pocilloporidae

Pocillopora

Family Pocilloporidae; cauliflower coral



1) *damicornis*; 2) *elegans*; 3) *meandrina*, 4) *verrucosa*; 5) *eydouxi*; 6) *indiana*; 7) *ligulata*; 8) *verrucosa* in high energy environment; 9) *Pocillopora*-dominated habitat

Colony type	Branching, becoming submassive in high energy environments
Corallite type	small, flush, immersed, pore like
Description	Branches fine to robust and flattened, covered with distinctive verrucae, immersed corallites, coenostium covered with granules
Septa-costae	Two unequal cycles of septa
Colour	Cream, brown, pink & purple
Other remarks	Tentacles are extended during the day and night

Seriatopora

Family Pocilloporidae; bush/bird's nest coral

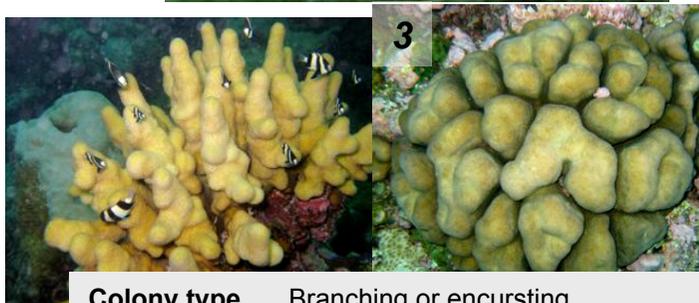
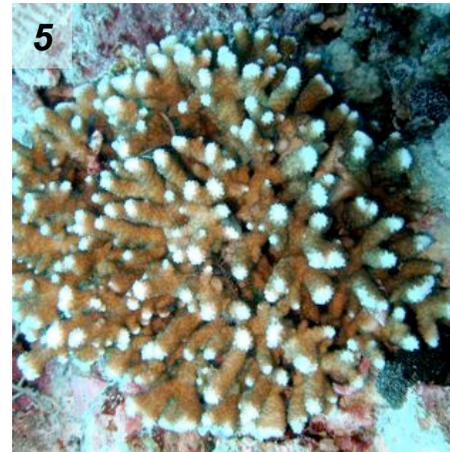


1) *hystrix*; 2) *guttatus*; 3) *dendritica*, 4) *caliendrum*; 5) galls, made by symbiotic crab

Colony type	Compact bushes
Corallite type	Arranged in neat rows along the branches
Description	Bushy, thin and tapering branches with pointed or rounded tips, corallites-neat rows along the branches, a rim of tall spines around the calice
Septa-costae	1-2 cycles of septa (six) fused to the columella
Colour	Light yellow, tan or green
Other remarks	Coenostium-covered with fine spines. Easily confused with fine <i>Stylophora</i>

Stylophora

Family Pocilloporidae; hood/finger coral



1) *pistillata*; 2) corallite hoods;
3) *pistillata*, alternate forms,
4) *subseriata*; 5) *madagaskariensis*;
6) *mamillata*; 7) *wellsii*; 8) *kuehlmani*

Colony type	Branching or encrusting
Corallite type	Vary in structure according to the position, with a prominent hood
Description	Branches thin except for <i>pistillata</i> , with rounded or blunt tips, corallites-hooded on distal part of branches
Septa-costae	1st cycle meet the collumela
Colour	pale colours - yellow, green or tan
Other remarks	Tentacles usually extended at night

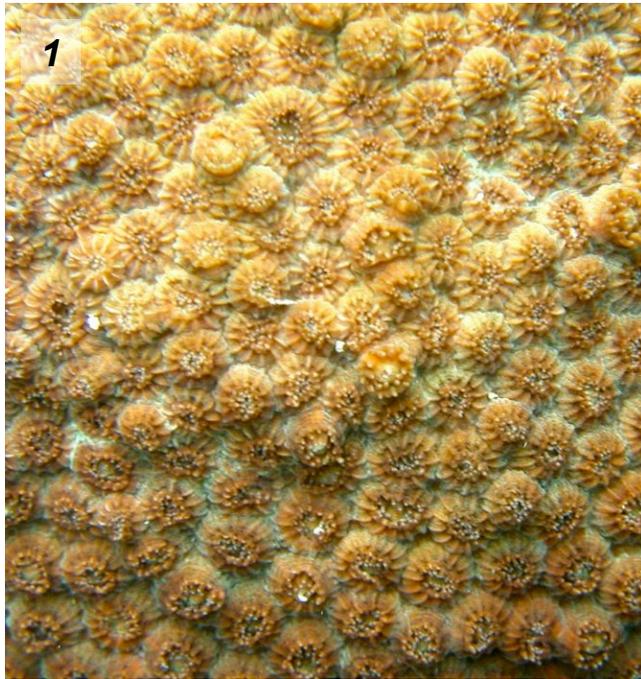


Fam: **Faviidae**



Cyphastrea

Family Faviidae

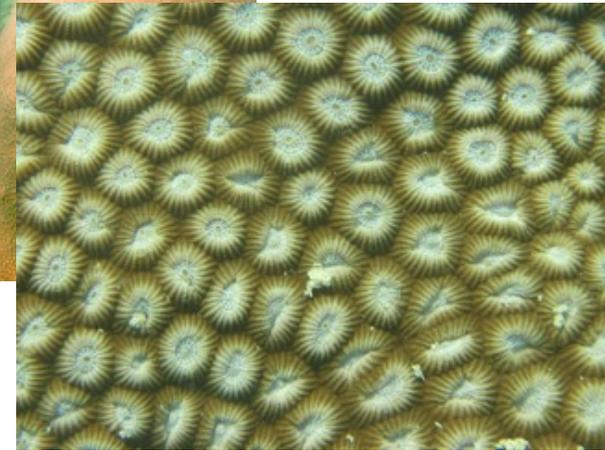
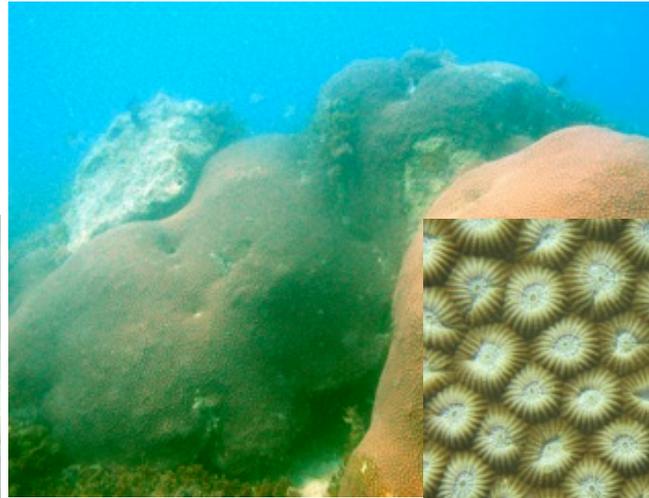
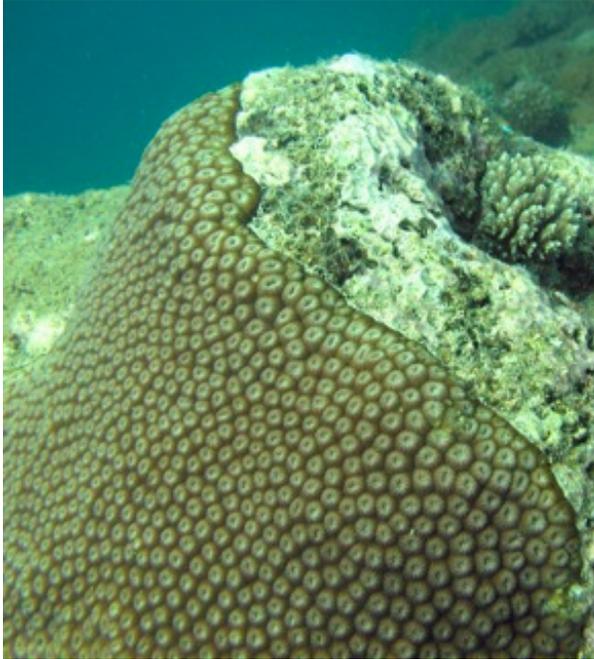


1) *serailia*, 2) *chalcidum*,
3) *microphthalma*

Colony type	Massive or encrusting
Corallite type	Plocoid
Description	Rounded calices, less than 3mm diameter in diameter, small cone shaped corallites, coenostium granulated, small space between corallites
Septa-costae	Costae, restricted to corallite wall
Colour	Tan, brown with white highlights
Other remarks	Tentacles are extended at night

Diploastrea

Family Faviidae; double star coral

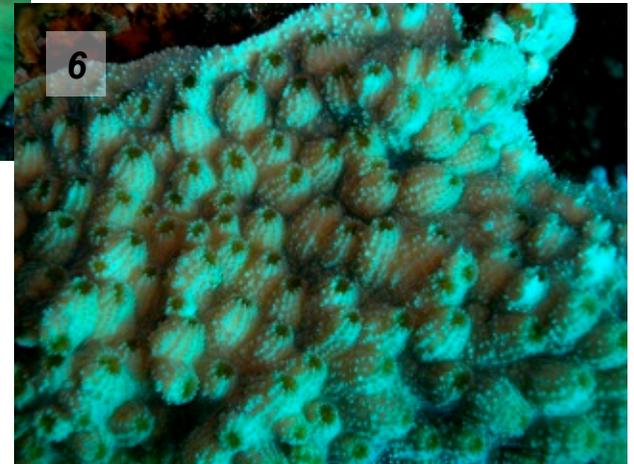
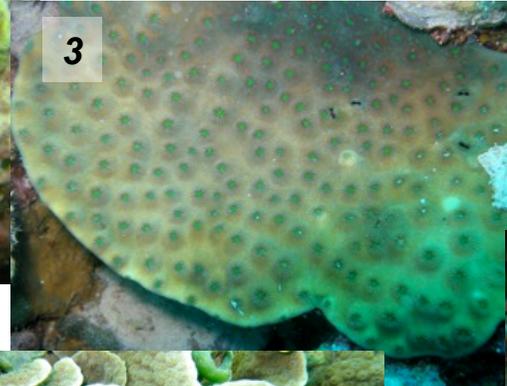
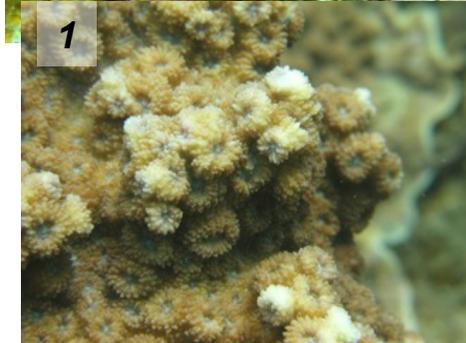


Monospecific - D. heliopora

Colony type	Dome shaped, can be very large
Corallite type	Plocoid/conical ,10-20mm diameter
Description	Dense colony & corallites, large cones with small opening, strongly lined costae, tentacles are extended at night
Septa-costae	Septa-equal, costae-very prominent, walls pores
Colour	Brown
Similar species	Monospecific

Echinopora

Family Faviidae

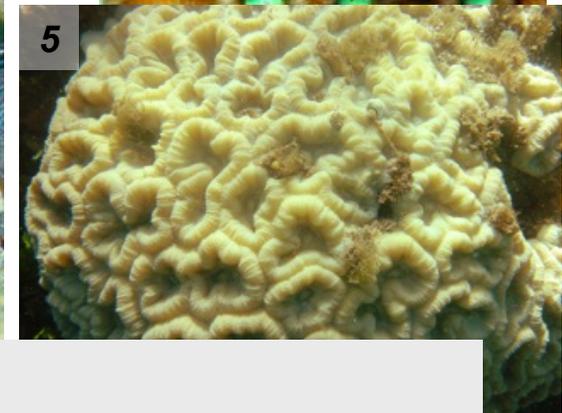
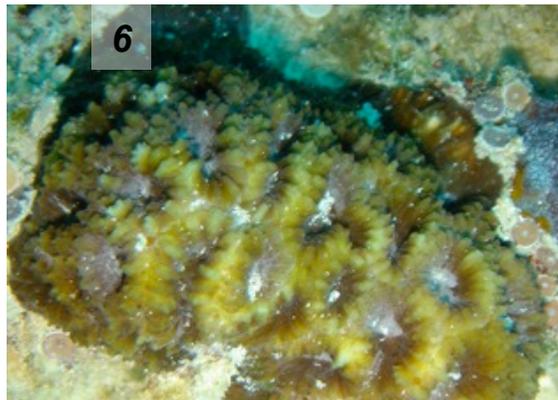
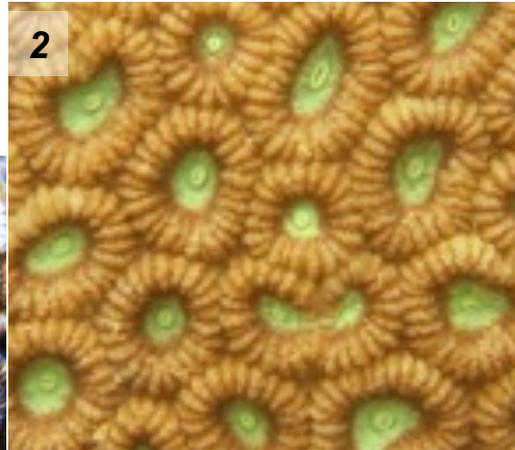


1) *hirsutissima*; 2) *lamellosa*; 3) *gemmifera*, 4) *robusta*; 5) *forskaliana*; 6) *tiranensis*

Colony type	Encrusting, sub massive or plating
Corallite type	Plocoid, up to 10mm and elevated, though differs among species
Description	Coenosteum with short spines, corallites uniform shape, height and scattering
Septa-costae	Irregular, costae restricted to the corallite wall, with spines
Colour	Brown, with white growing edges
Other remarks	Usually prominent columella, tentacles extend at night,
Similar species	<i>Echinophyllia</i> - corallites larger with spines in rows on coenosteum.

Favia

Family Faviidae; knob/moonstone coral

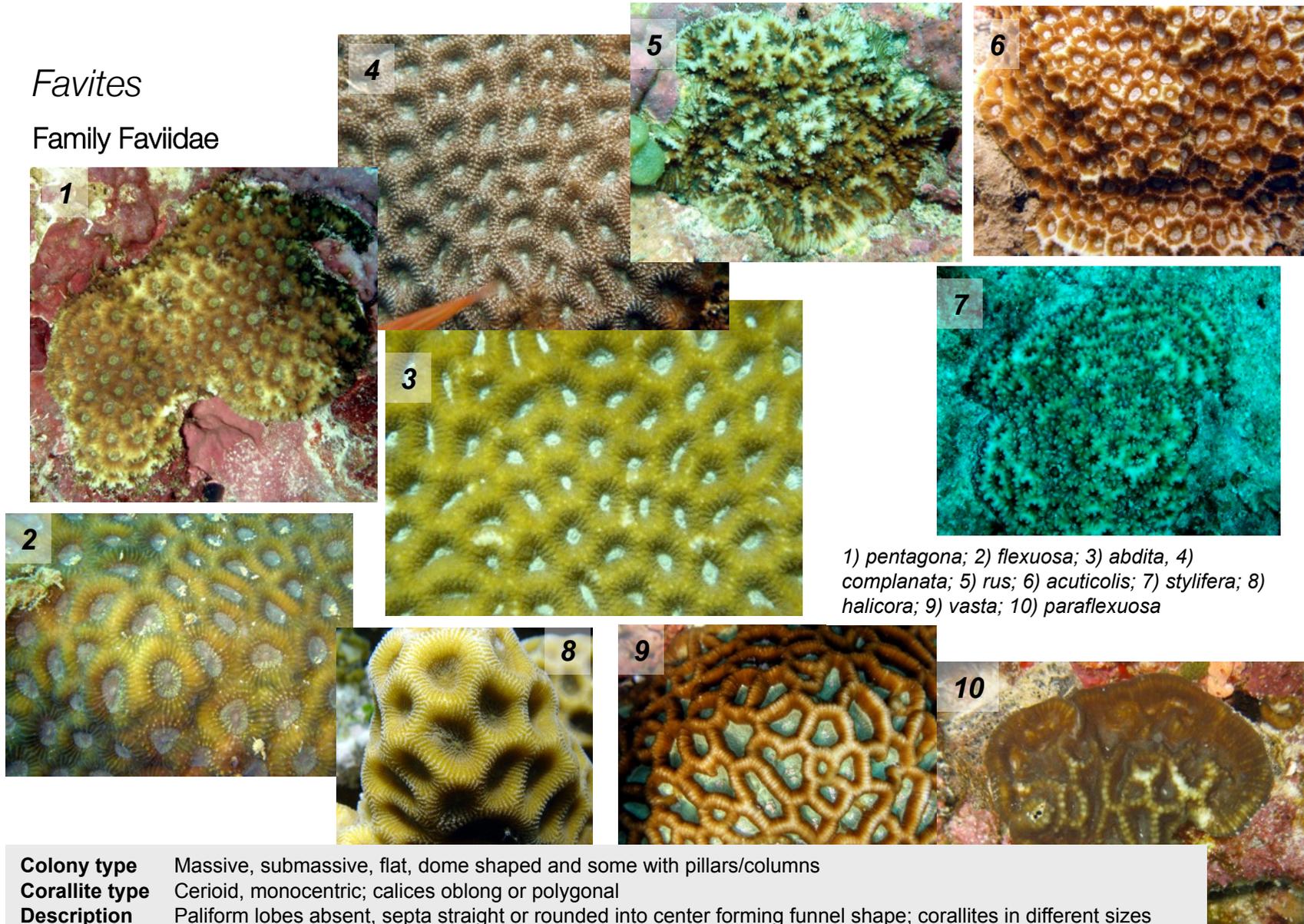


1) *favus/danai*; 2) *speciosa*, 3) *lizardensis*; 4) *helianthoides*; 5) *vietnamensis*; 6) *mathai*; 7) *stelligera*

Colony type	Massive, flat or dome shaped
Corallite type	Plocoid corallites, mostly monocentric, inratentacular budding
Description	Corallites approximately equal in size, and vary from highly plocoid to almost-ceroid and from circular to irregular
Septa-costae	Extend to the coenosteum
Colour	Variable, multicoloured openings with different stomodium
Other remarks	Tentacles are extended at night and have pigmented tips,
Similar species	<i>Montastrea</i> – extratentacular budding, corallites are squeezed into irregular shapes

Favites

Family Faviidae

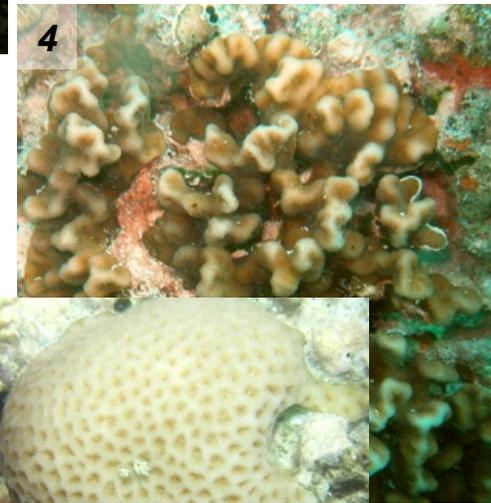
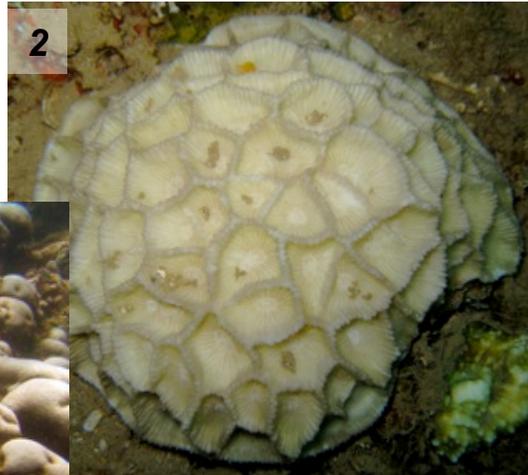


1) *pentagona*; 2) *flexuosa*; 3) *abdita*, 4) *complanata*; 5) *rus*; 6) *acuticolis*; 7) *stylifera*; 8) *halicora*; 9) *vasta*; 10) *paraflexuosa*

Colony type	Massive, submassive, flat, dome shaped and some with pillars/columns
Corallite type	Ceriod, monocentric; calices oblong or polygonal
Description	Paliform lobes absent, septa straight or rounded into center forming funnel shape; corallites in different sizes
Colour	Variable
Other remarks	Tentacles are extended at night, paliform lobes absent or seldom developed
Similar species	<i>Goniastrea</i> - with exsert paliform lobes and regular pattern of calices and septa with fine teeth, neat appearance <i>Platygyra</i> - more ragged septa, meandroid

Goniastrea

Family Faviidae; lesser star coral



1) *retiformis*; 2) *peresi*;
3) *pectinata*; 4) *favulus*;
5) *edwardsi*; 6) *deformis*

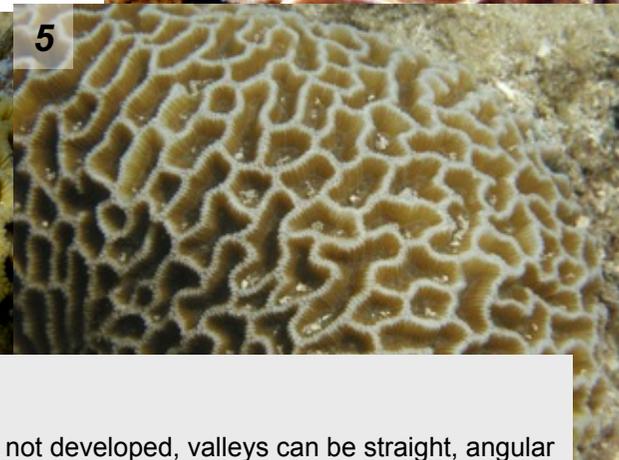
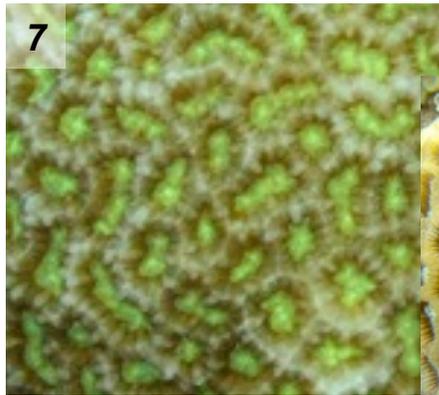
Colony type	Massive, sub-massive, plates, encrusting
Corallite type	Ceriod, monocentric to short meandroid (one species is fully meandroid), mouths very distinct
Description	Paliform lobes prominent, angular and regular tightly packed corallites, calices are 4-8 mm diameter
Septa-costae	Septa smooth and very regularly/neatly arranged, drop abruptly into the calice
Colour	Variable
Other remarks	Tentacles extended at night, columella is spongy, well developed and form clear centres in meandroid colonies
Similar species	<i>Platygyra</i> - weakly developed paliform lobes, columella centres are seldom distinguishable, septa less regular <i>Favites</i> - almost never meandroid, septa less regular

Platygyra

Family Faviidae; brain coral



1) *daedelea*; 2) *ryukyusensis*;
3) *lamellina*; 4) *sinensis*;
5) *acuta*; 6) *pini*; 7) *verweyi*



Colony type	Massive, dome shaped or flat
Corallite type	Meandroid or cerioid, calices 3-6mm in diameter
Description	Spongy, poorly defined & meandroid columella, paliform lobes are not developed, valleys can be straight, angular or contorted,,
Colour	Brown or variable, often green mouths
Other remarks	Tentacles are extended at night,
Similar species	<i>Goniastrea</i> - well-developed paliform lobes and columella centers <i>Favites</i> - always monocentric, corallites angular <i>Leptoria</i> - much finer, neater, more meandroid, wall/valleys more uniform/y spaced septa

Plesiastrea

Family Faviidae; small knob coral



1) *devantieri*;
2) *versipora*



Colony type Massive rounded or flattened
Corallite type Plocoid (small rounded), crowded but evenly rounded
Description Neat, small regular packed rounded corallites, well developed even septa and paliform lobes
Septa-costae Costae prominent, non continuous
Colour Tan or green in colour
Other remarks Calices less than 3mm, tentacles extended day and night in different species
Similar species most like *Montastrea* which are larger.
Cyphastrea - plocoid, spreaded corallites, granulated coenostium,



Fam: **Agariciidae**



Gardineroseris

Family Agariciidae; elephant skin coral

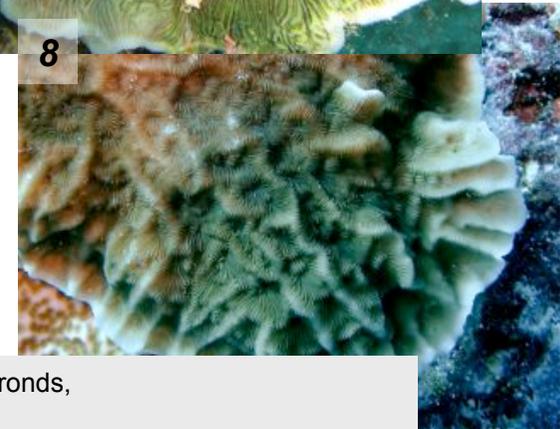
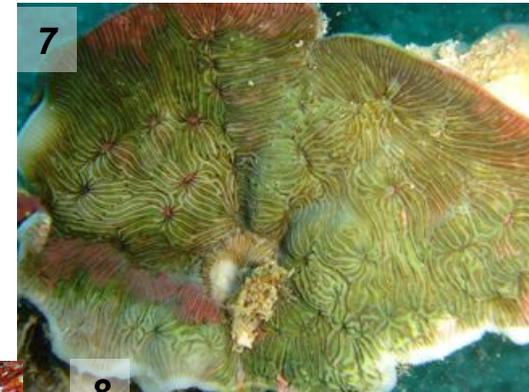
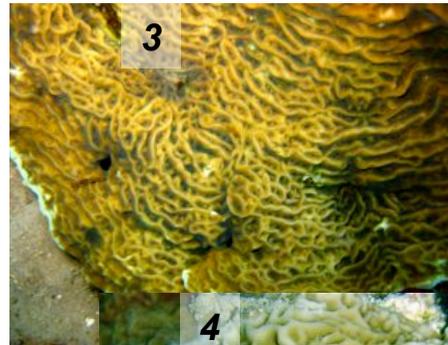
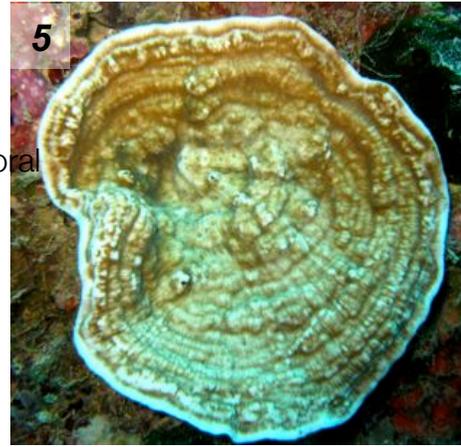


G. planulata; monospecific genus

- Colony type** Massive, sometimes encrusting with laminar margins
- Corallite type** Corallites immersed with indistinct walls in deep excavations with very acute ridges
- Description** Corallites or group of corallites immersed with indistinct walls in deep excavations with very acute ridges
- Septa-costae** Very fine and even
- Other remarks** Extratentacular budding in calice corners, columella present, tentacles are extended at night.

Leptoseris

Family Agariciidae; porcelain, lettuce coral

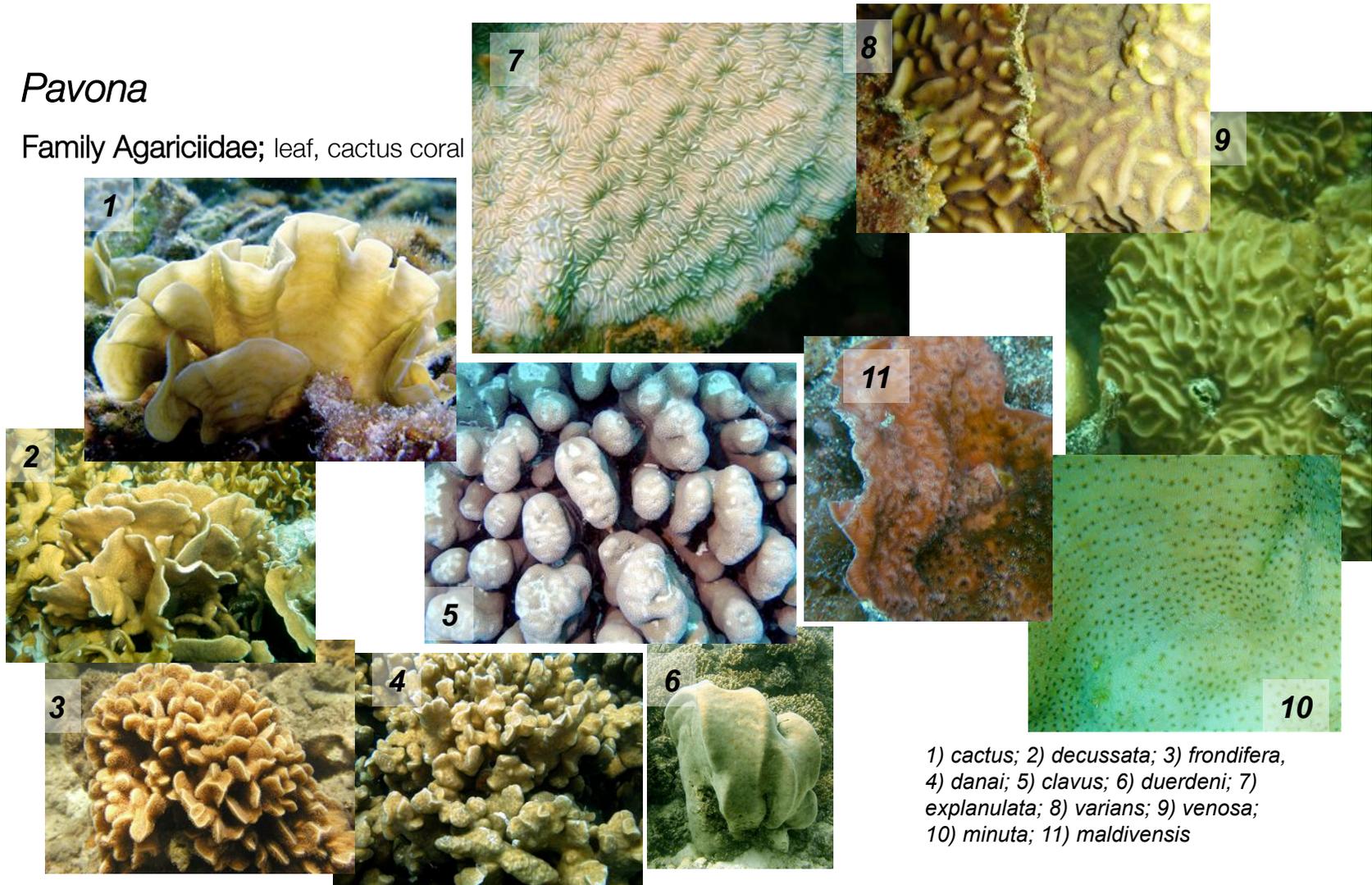


- 1) *hawaiiensis*; 2) *exaplanata*;
 3) *mycetoseroides*, 4) *incrustans*;
 5) *foliosa*; 6) *solida*; 7) *scabra*; 8) *yabei*

Colony type	Laminar or encrusting sheets and unifacial, delicate, contorted and subdivided fronds,
Corallite type	Small (6mm) shallow depressions, poorly defined walls
Description	Often with whitish edges, frequently have central corallite, septo-costae thin, curved and longer than 1cm
Septa-costae	Thin, in clear alternating series, granulated/rougher than <i>Pavona</i>
Columella	Central, usually separated by ridges, interconnected by septo-costae
Other remarks	Circum-oral budding followed by marginal budding, tentacles extended at night. Most common on deeper slopes

Pavona

Family Agariciidae; leaf, cactus coral



1) *cactus*; 2) *decussata*; 3) *frondifera*,
4) *danai*; 5) *clavus*; 6) *duerdeni*; 7)
explanulata; 8) *varians*; 9) *venosa*;
10) *minuta*; 11) *maldivensis*

Colony type	Massive, columnar, fronds, laminar or encrusting. May be contorted.
Corallite type	Walls poorly developed or absent, centers in small shallow depression, small (<3mm)
Septa-costae	Corallites connectd by uninterrupted septo-costae giving distinct star-patternin absence of walls.
Other remarks	Weak central columella, tentacles extended only at night except for <i>P. explanulata</i>
Similar species	<i>Leptoseris</i> has finer septo-costae in two distinct cycles, more laminar, colonies are unifacial

Pachyseris

Family Agariciidae; elephant skin coral



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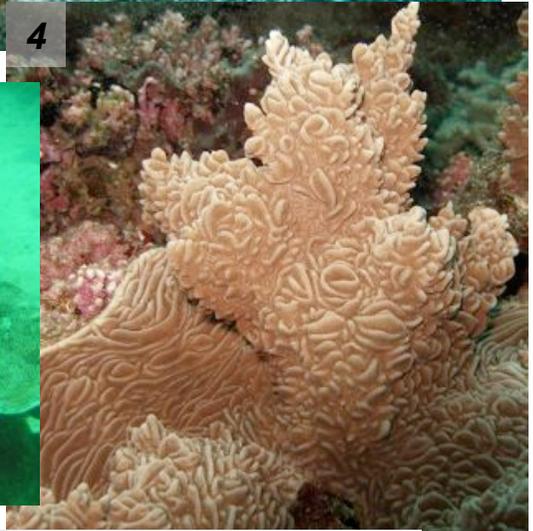
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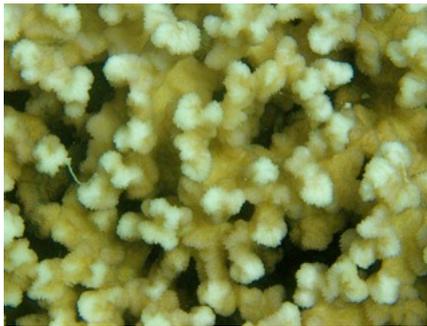
1/2) *speciosa*;
3/4) *rugosa*;
5) *turbid habitat*



Colony type Laminar & unifacial to branched & bifacial, and encrusting
Corallite type Centres are not discernible, <1mm, aligned in valleys,
Description Surface is a concentric ridges parallel to the margins, from highly ordered/parallel to contorted.
Septa-costae Fine, even and tightly compacted
Other remarks Very distinctive, most abundant in deeper, turbid sheltered locations.
Similar species *Pavona* - septo-costae are thicker, shorter and straighter



Fam: **Merulinidae**



Hydnophora

Family Merulinidae; Exclamation coral

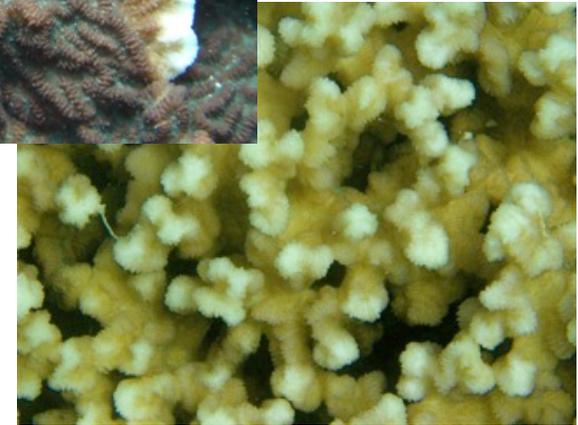


1) *exesa*; 2) *microconos*; 3) *pilosa*, 4) *rigida*

Colony type	Massive, encrusting or branching
Corallite type	Wall absent
Description	Monticules or hydnoophores present, between the corallites, with short tentacles around the base of each monticule
Other remarks	Tentacles extended during the day and night

Merulina

Family Merulinidae; cabbage, crust coral



M. ampliata

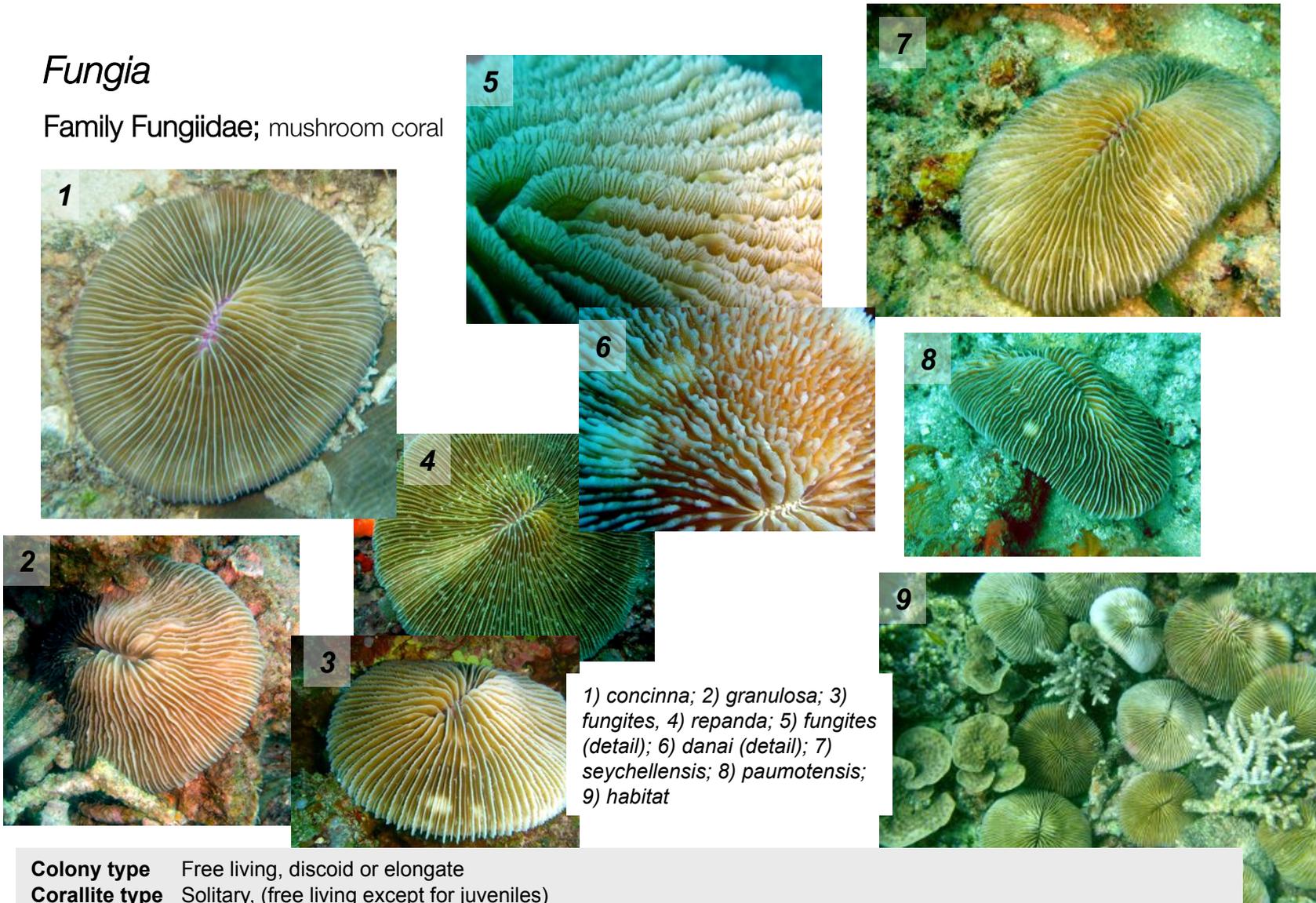


Colony type	Laminar, with short vertical projections
Corallite type	Corallites are in a row, down valleys
Description	Valleys are short and straight spreading in a fan and then dividing, valleys are pink/pale; walls are pale yellow or vice-versa, bifacial fronds
Other remarks	Columella is trabecular, fused into a continuous mass.
Similar species	<i>Scapophyllia</i> - parallel valleys, not extending

Fungiidae

Fungia

Family Fungiidae; mushroom coral



1) *concinna*; 2) *granulosa*; 3) *fungites*, 4) *repanda*; 5) *fungites* (detail); 6) *danai* (detail); 7) *seychellensis*; 8) *paumotensis*; 9) *habitat*

Colony type	Free living, discoid or elongate
Corallite type	Solitary, (free living except for juveniles)
Description	Large-sized adults
Septa-costae	Septa-teeth, not lobed, costae-rows of spines
Colour	Tan, brown, with purple or green highlights
Other remarks	Tentacles are extended during the day, short, tapering & spaced tentacles
Similar species	<i>Cycloseris</i> - aboral side smooth, smaller <i>Heliofungia</i> - septa with lobed teeth, longer tentacles

Herpolitha

Family Fungiidae; mushroom coral

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1) *concinna*; 2) *granulosa*; 3) *fungites*, 4) *repanda*; 5) *fungites (detail)*; 6) *danai (detail)*; 7) *seychellensis*; 8) *paumotensis*; 9) *habitat*

Colony type	Colonial, elongate, free living
Description	Elongate, often bent, prominent axial furrow. Mouths occur inside the furrow. In <i>limax</i> , secondary mouthsparell to the axis,
Septa-costae	Septa-lack prominent teeth, radiate from axial furrow, large
Colour	Tan
Other remarks	Tentacles are extended during the night
Similar species	<i>Ctenactis</i> - single individual sometimes with several mouths, prominent teeth



Fam: **Siderastreidae**



Anomastrea

Family Siderastreidae; false pillow coral



Distribution: Western Indian Ocean endemic. Known only from East African mainland and Madagascar

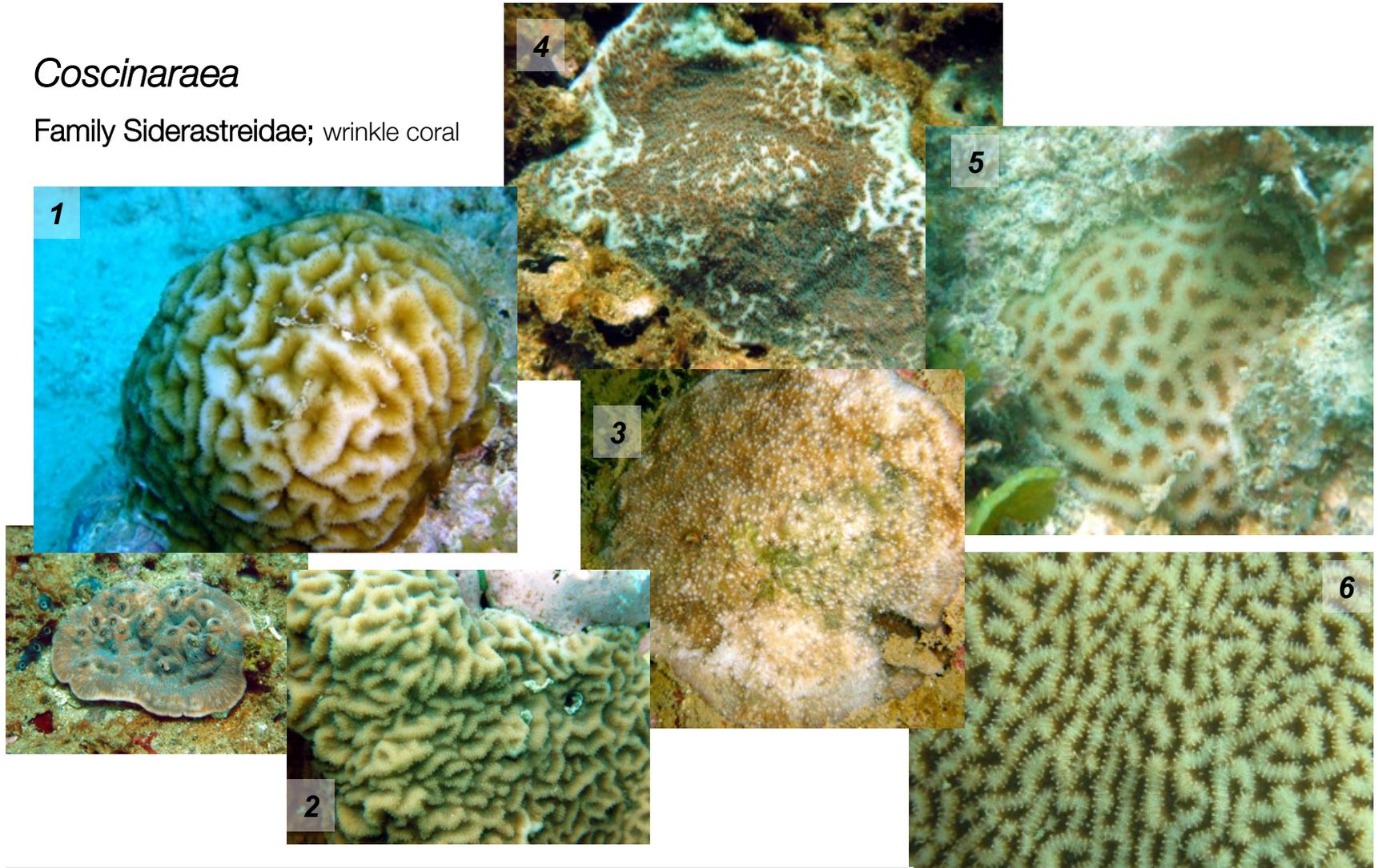


Monospecific - Anomastrea irregularis

Colony type	submassive in small golf-balls, to encrusting
Corallite type	Submeandroid to cerioid
Description	Walls are thin and septa have irregularly fused margins. Septa are widely spaced and uniform, giving the colony surface a neat appearance. Tentacles are usually at least partly extended during the day
Septa-costae	Widely spaced and uniform,
Colour	cream to brown, may be bluish-grey.
Habitat	shallow reef flats
Similar species	<i>Coeloseris mayeri</i>

Coscinaraea

Family Siderastreidae; wrinkle coral



Colony type	Massive, columnar, encrusting or laminar,
Corallite type	Ceriod to meandroid, corallites in short valleys or irregularly scattered,
Septa-costae	Septo-costae fused in a distinctive manner, finely serrated to heavily granulated margins
Other remarks	Group of pinnules, intratentacular, septa perforated and granulated, mostly fusing towards the papillose columella

1) *monile*; 2) *exesa*; 3) *wellsi*, 4) *sp. nov.*; 5) *columna*; 6) *crassa*

Horastrea

Family Siderastreidae



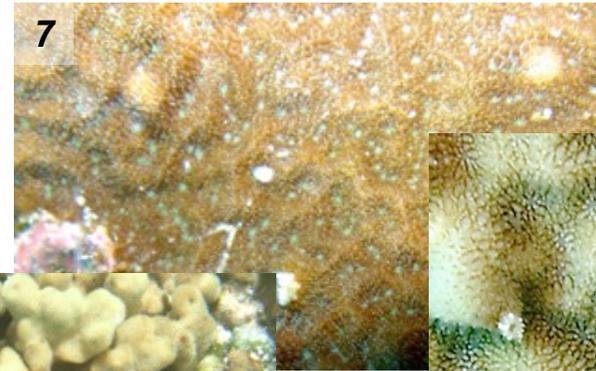
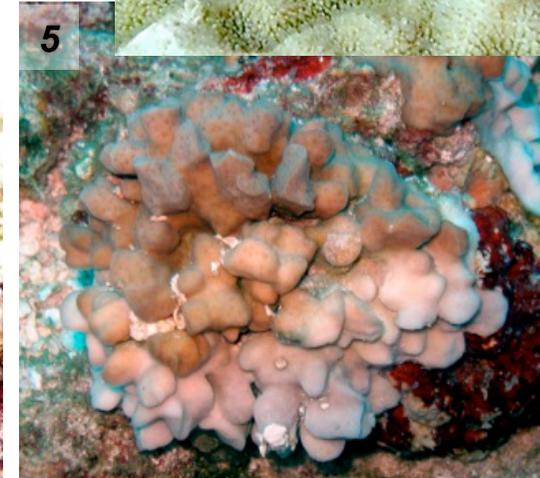
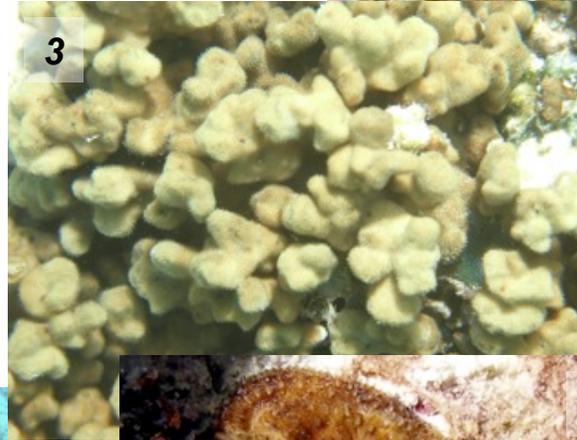
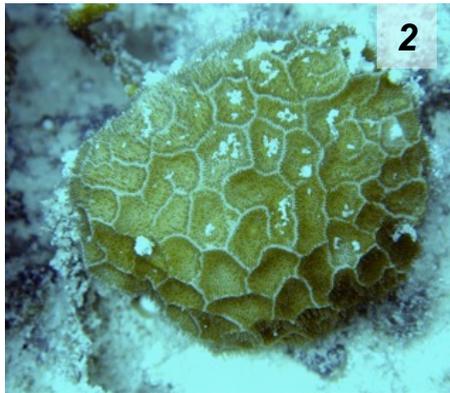
Monospecific - Horastrea indica

Colony type	Massive/hemispherical
Corallite type	Large and plocoid to meandroid with several centres
Septa-costae	Septa in three orders, costae well developed
Colour	Pale brown with blue-grey oral discs
Habitat	high-sediment environments, often in sand/rubble at base of reefs
Similar species	General appearance is <i>Favia</i> like but too messy, skeletal structures are closest to <i>Siderastrea</i>

Distribution: Western Indian Ocean endemic. Known only from East African mainland and Madagascar

Psammocora

Family Siderastreidae; Exclamation coral



1) *haimeana*; 2) *profundacella*;
3) *obtusangula*, 4) *explanulata*;

Colony type	Mostly encrusting; also submassive, columnar, laminar
Corallite type	Corallites small, shallow, sometimes forming short valleys
Septa-costae	Complex granulated septo-costae - primary septo-costae embedded in secondary ones, forming intricate patterns.
Colour	Light brown
Other remarks	Columella consists of a group of pinnules, intra-tentacular marginal budding, tentacles are extended during the day and night
Similar genera	<i>Coscinaraea</i> - large corallites with large calices

Pseudosiderastrea

Family Siderastreidae; false pillow coral



Monospecific - Pseudosiderastrea tayami

Colony type	Encrusting to dome shaped, up to 160mm
Corallite type	Ceriod, polygonal, 3-6mm, walls variable from thick to fine
Septa-costae	Septa evenly spaced & fused towards the center, in fanlike groups, fine saw like teeth
Columella	1-4 pinnules
Calice	3-6mm across



Genus

7

Family ; common name

1

6

3

5

2

4

1) *haimeana*; 2) *profundacella*;
3) *obtusangula*, 4) *explanulata*;
5) *stellulata*; 6) *nierstrazi*
(*detail*); 7) *nierstrazi*

Colony type	Mostly encrusting; also submassive, columnar, laminar
Corallite type	Corallites small, shallow, sometimes forming short valleys
Septa-costae	Complex granulated septo-costae - primary septo-costae embedded in secondary ones, forming intricate patterns.
Colour	Light brown
Other remarks	Columella consists of a group of pinnules, intra-tentacular marginal budding, tentacles are extended during the day and night
Similar genera	<i>Coscinaraea</i> –large corallites with large calices